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ABSTRACT

This report, one of several companion documents, contains a summary of the research and analysis of a North Dakota school finance study funded by Public Law 93-380, Education Amendments of 1974. The purpose of the study was to collect and examine certain data, to report findings and concerns growing out of that analysis, and to offer study group recommendations. Several lines of inquiry were pursued with the purpose of maintaining and improving equity in state funding of elementary and secondary education in North Dakota. The report discusses the recent history of school finance, a survey of superintendents regarding the impact of a 1973 foundation law, and related educational finance problems.
 (Author/LD)

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A GENERAL REPORT

The Financing of
Elementary and
Secondary
Education in
North
Dakota

"The FESEND Project"

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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University of North Dakota
Grand Forks, North Dakota

1979

There are several ways to apportion
the family income--all of them
unsatisfactory.

Robert Benchley

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INTRODUCTION

The cost of elementary and secondary education in North Dakota during the school year 1976-77 was \$168,650,965.00. Per capita costs approximated \$262.00. The per student costs were \$1,295.00. Lots of dollars! And capital expenditures were not included in the figures.

The very magnitude of costs argues for attention: Are these dollars distributed appropriately, used effectively; is the tax burden shared fairly?

Moreover, North Dakota citizens--and their representatives--have attended to school finance questions for reasons besides magnitude. The finance practices should "equalize" opportunity--a concept which holds that the quality of one's education should not be a function of the wealth of the district in which a student happens to live. The state assumes a share of the varied burdens imposed by different transportation circumstances and by different incidences of special youngsters. All this in a state sometimes considered the most rural of states--where distance and sparsity complicate the delivery and increase the cost of service, where dollar equalization may not purchase equalization of opportunity.

The whole subject, in North Dakota and elsewhere, is extraordinarily complex; still the quests for equal opportunity, effective use of resources, and fair sharing of burden remain worthy and important obsessions.

The present report, and companion monographs, are attempts to contribute thought and data to assist in informing future legislative deliberation.

No claim of infallibility accompanies the report. It would be arrogant to presume one knew all the answers; one cannot even know all the questions.

No universal agreement on nor acceptance of report conclusions is anticipated. It would be innocent to believe that biases of circumstances, for reader and writer, will not intrude. We all will "watch out for ourselves." We may tolerate an advantage but we will not wish to be inflicted with a disadvantage.

The foregoing assertions are intended neither to alarm nor accuse, anger nor offend. They are intended to describe how part of the political process works.

Our mutual quest should be for effectiveness and for equity. We are all in this together! We should be clear that our desire is for equalization both of opportunity for our youngsters and burden for our taxpayers.

But the abstraction, equalization, cannot be implemented without the structure of law. How to achieve equalization must be agreed and arranged. Both resist easy definition or ready acceptance.

What is equal opportunity? In one district a youngster can choose from 150 courses, and in another from 25. Equal? However, in the second district the student has a 60% chance of participating on an interscholastic basketball team, while the student in

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the first district has only a 5% chance. Equal? Clearly, equal opportunity cannot mean identical opportunity.

In general, the student in the larger high school will be exposed to a greater variety of persons with a greater variety of interests and talents; the student in the smaller high school may interact more frequently and establish a closer bond with teachers. There is something to be said for both. Identical opportunities they are not. Are they equal?

"Equal opportunity" ultimately involves certain trade-offs which will be--and should be--continuously debated. In the larger school there will be a continuing need to assure humaneness and to attend the individual student; in the smaller school there will be a continuing need to expand and enrich variety and opportunity.

Legislation must seek a best approximation of the goals while recognizing the difficulties. It has been suggested that our effort should be to distribute inequities in a rational way.

Such a task is not easy. There needs to be a general recognition of the complexity so that arrangements--the formulae for distribution--are considered in the context of sober study rather than parochial passion.

We're all in this together.

This publication resulted from a study funded by Section 842, Education Amendments of 1974, PL 93-380, Assistance to States for State Equalizing Plans. The purpose for the study was to collect and examine certain data, to report findings and concerns growing

out of that analysis, and, where believed justified, to state conclusions and to frame recommendations. Several streams of inquiry were pursued. The general purpose was intended to maintain and improve equity in state funding of elementary and secondary education.

This monograph is intended to summarize the results of the research and analysis; related monographs report data and discussion at greater length and in more technical detail. This monograph is intended to be "general" and more widely distributed. The monograph was not written for experts in educational finance theory.*

This monograph will include the study group recommendations which grew out of the research and related activity.

The research effort was directed by Richard Hill, Professor of Educational Administration at the University of North Dakota. Research Associates included, in the first year of the program, Carl Carlson, Gerald Roth, Gary Shaw, David Smette, and Harry Weisenberger; in the second year of the effort Smette remained and Gerald Bass and Bruce Montplaisir joined the effort.

The questions to be researched were framed initially by Professor Hill and Dr. Ronald Torgeson, State Department of Public Instruction, in consultation with Howard Snortland, Superintendent

*Nor was it written for the scholar. Attributions are contained in the text and first person pronouns and present tense are used frequently and consciously.

of Public Instruction. The questions were submitted to the Legislative Research Committee, to a Steering Committee--composed primarily of legislators--and to an Advisory Committee composed of representatives from many state organizations, some of which are directly related to education and some of which are not.

The deliberations of these diverse groups contributed some new questions, deleted some, modified or shaped others; some of the added questions were not so much research questions as they were questions which sought the varieties of thought and practice which currently exist--how is special education funded and what are the consequences of the different forms of funding--would be an example. (The questions asked are included in the Appendix.)

Subsequent to the development of the monographs, a series of "hearings" across the state were planned to seek general consideration of and reaction to the study conclusions and recommendations.

The data year chosen as the focal point for the study efforts was the latest year for which complete data were available--the school year 1976-77. Some data were collected for the school years 1972-73 through 1976-77. This was done so that longitudinal data both preceded and succeeded the adoption of the "new" foundation program.

The study progressed in a context where assessment practices and a depressed economy in this agricultural state were very much in the news. So, too, were debates about coal tax policy. Still, the study responded to no crisis--nor was it intended to create a

crisis.

North Dakotans--most particularly its legislators--recognized the need for continued study and debate of the information and issues; many supported the effort with their attention, interest, and encouragement. They--the legislators--were receptive to information; at the same time, they had achieved a major, and generally popular, school finance change in "2026" (the North Dakota Foundation Program) in 1973 and they had effected changes and improvements in the succeeding two sessions. While they wished to consider change, they seemed not interested in too radical change.

This perceived attitude of patience and caution matched the attitude of the project staff.

North Dakota has done a very good job in financing education! (This conclusion will be reported in some detail when "users' perceptions" are discussed.) The recent years have encompassed the phenomena of decreasing enrollments, severe inflation, court pressure to equalize, federal pressure to expand special services, and a general concern regarding compensation for members of the profession. Moreover, while pressures to expand or change are most easily accommodated by increasing spending, profound concern about cost of government--including schools--prevails in North Dakota and elsewhere.

Programs--opportunities--and services for most North Dakota youngsters actually improved during the period; pupil teacher ratios declined.

While this monograph will focus on remaining problems and

work undone as well as current controversies, it proceeds in a context recognizing the considerable, even admirable, past legislative attention and effort.

Patience and caution seemed reasonable qualities to attend consideration of these areas given this context of appreciation and satisfaction.

Certainly controversies remain in the shaping of North Dakota school finance policy and legislation. There exists considerable potential for east-west, small town-large town, low wealth-high wealth arguments regarding what constitutes equity. Moreover, historical imbalances and inequities will certainly be remembered for the deliberation processes--and they should be. Past sins and present errors need identification so they can help develop "best policy" decisions as we move forward.

The deliberations, however, must remain rational to shape good policy for the future.

A brief acknowledgement: Many persons, officers, and agencies assisted greatly in the study effort. Naming individuals is dangerous because inadvertent--but nevertheless offensive--omission occurs. In the Appendix, members of the Steering Committee, Advisory Committee, agency personnel, and university consultants who assisted are named. Nameless, but much appreciated, will be the many correspondents and interviewees, personnel at the university library, computer center, and secretarial personnel at both

the State Department of Public Instruction and the University of North Dakota.

Many contributed time, interest, and talent; however, the project staff remains responsible for what is said in these reports.

BACKGROUND

Recent History

The last major change in North Dakota school finance legislation prior to 1973 occurred in 1959. The 1959 statute established certain contours which must be described if the 1973 and subsequent modifications are to be fully understood.

The North Dakota statute (unlike legislation in most other states) attended the cost of sparsity and provided a system of combining state, county, and local sources in the formulae for dollar distributions. In the sessions following 1959 until 1973, dollars were increased but the formulae for their distribution remained relatively constant.

Just prior to the 1971 session a good deal of work--accompanied by a good deal of noise--suggested that a major overhaul of finance legislation was needed. Two quite separate proposals were considered--a major modification of the 1959 Legislation and the so called "Fair-Share" bill. Both incorporated, more aggressively than was characteristic of the 1959 legislation, the notion of "equalization."

The proposed legislation had flaws or problems and, ultimately, more legislative opponents than proponents. "Fair Share" legislation was defeated. However, the concept of "equalization" was alive and well. In the interim between the 1971 and 1973 sessions, a legislative research committee studied the concept and suggested a mechanism for more nearly equalizing expenditure than was the case in prior years.

The mechanism was embodied in "Senate Bill 2026" and the reference, 2026, remains the frequent name for the state foundation program.

Subsequently other interim study committees prior to the 1975 and 1977 sessions proposed correcting, improving, and modifying changes. These changes, to oversimplify what actually occurred, increased and broadened state support. This process has been described as "tuning."

All this legislative activity was supported by, some would claim intimidated by, court cases in California (Serrano) and Texas (Rodriguez) and elsewhere. These cases, in aggregate, seemed to suggest that educational opportunity should not be a function of the wealth of the district in which a student happens to live.

Currently "2026" is undergoing another study. Some modification--at the very least in the "cost of education" statistic--can be anticipated to be recommended to the total legislature. What is likely to remain constant is the desire (in the language of the law) ". . . to support elementary and secondary education in this state from state and county funds based on the educational cost per pupil."

This intent is augmented by other aspirations and recognitions: sparsity costs money (efficiencies are various); transportation burdens are various; the level of state support should approximate or exceed 50% of cost (a target of 70% has been articulated); elementary, junior high school, and senior High school

costs are variable and should be treated differently; equalization should be attempted; outside funding sources (such as PL 874) must be accommodated so the effects of state legislation do not benefit nor disadvantage any district (and by extension, any student) unfairly nor inequitably.*

Most of the support for education from state sources comes from the foundation program--\$75,895,000 or 41.4% of the total in 1976-77. The "county portion" of the foundation program derived from a 21 mill county levy adds \$15,305,000 or 8.4% of the total.

Thus almost 50% of the revenues come from the two portions of the single program. To comprehend the total of state support, however, several additional revenue sources must be identified. To do this a table contained in "Summary of Facts, Public Schools Districts, as of June 30, 1977" (school year 1976-77) prepared by the Department of Public Instruction is here reproduced.

GROSS RECEIPTS BY SOURCE FOR NORTH DAKOTA SCHOOLS IN 1976 - 1977

<u>0010 - Local Sources</u>	<u>Receipts</u>	<u>Per Cent</u>
Dist. Property Tax	\$ 36,438,209.84	19.87
CI's & Special Reserve	5,988,050.81	3.27
Tuition from Patrons	195,429.86	.11
Trans. from Patrons	106,138.63	.06
Other Revenue	5,260,017.82	2.87

*This brief historical statement ignores many of the details of this yeasty period in North Dakota school finance. More detail and a description of the characteristics of the North Dakota Foundation Program were contained in "Background Memorandum on the Financing of Elementary and Secondary Schools" prepared by the Legislative Council Staff for the Committee on Education, June 1977. This nine-page document is contained in a companion monograph.

<u>0020 - County Sources</u>	<u>Receipts</u>	<u>Per Cent</u>
Equalization Fund	\$ 15,304,676.08	8.35
Oil and Gas Tax	1,482,283.16	.81
Miscellaneous	737,617.23	.40
<u>0300 - State Sources</u>		
State Tuition	\$ 6,842,573.78	3.73
Foundation Payment	75,895,028.14	41.39
Vocational Ed. Payment	2,598,196.02	1.42
Special Ed. Payment	2,251,593.43	1.23
Other State Revenue	851,361.54	.46
<u>0040 - Federal Sources</u>	\$ 17,289,646.12	9.43
<u>0070 - Non-revenue Receipt</u>	\$ 5,517,939.90	3.01
<u>0080 - Trans. & Tuition</u>	\$ 1,931,722.78	1.05
<u>0090 - Transfers from Other Funds</u>	\$ 4,653,080.24	2.54
TOTAL RECEIPTS	\$183,343,555.38*	100.00

SOURCE: Summary of Facts, Public School Districts, as of June 30, 1977 (school year 1976-77), Department of Public Instruction.

The table reports three county sources and five state sources.

Clearly, consideration of financing elementary and secondary education in North Dakota must take into account more than the foundation program. Thus, while the focus of the current study effort is the foundation program, other revenue sources and other expenditure accounts must be addressed.

*Note: The receipt total exceeds the cost statistic reported on page one because of the effects of certain transfers, tuitions, and capital funds not included in the initial figure.

How the Revenue Sources Work

State Foundation Payment--County Equalization Fund

The foundation payment from the state and the equalization fund from the county must be considered together. They are parts of the same program.

The amount of foundation aid is related to "weighted" students. Weights are index numbers which are generally higher for high school students than for elementary students (because costs were found to be higher). Weights are generally higher for small school students than for large school students (because small school unit costs tended to be higher).

The weights currently employed include:

<u>Elementary</u>		<u>High School</u>	
One room rural (1-8)	1.30	1-74 ADM	1.70
Less than 100 ADM (1-6)	1.00	75-149 ADM	1.40
100-999 ADM (1-6)	.90	150-549 ADM	1.32
1,000 or more ADM (1-6)	.95*	550 or more ADM	1.20
7th & 8th (all sizes)	1.00		

The numbers of students in average daily membership (ADM) are multiplied by the proper index numbers and this sum is multiplied times an "educational cost per pupil" statistic. This statistic has been adjusted each year to approximate the same mix of local-state-federal dollars available for local schools.

*The elementary count may be made for students 1-8 though the payment is based on students 1-6. In the 1,000+ category payment is based on a district count where in the other elementary categories, payment is based on building count.

The "educational cost per pupil" statistic from 1973-74 through 1977-78 was \$540, \$540, \$640, \$690, and \$775, respectively. These cost of education statistics--the state and county portion--were derived from actual cost data presented to the legislature by the Department of Public Instruction.

The multiplication of total weighted pupils times the cost statistics yields a gross entitlement. This entitlement is reduced by 20 mills times the "latest available net assessed and equalized valuation of property" in the district. The effect of this feature--"the school district equalization factor"--is to reduce entitlement more in property-wealthy districts than in property-poor districts.*

The net entitlement is then paid to districts from two sources--the amount raised by the county 21 mill levy (the County Equalization Fund) and the balance from the state.

The actual law has additional features not explained in detail here. Chapter 15-40.1 NDCC, "State School Aid - County Equalization Fund", is the law. The interested reader is advised to seek the latest version of the law.

In research conducted on the law, however, several of these additional features were considered. They are here enumerated, but their detailed characteristics are not necessary to comprehend the working of the law: (1) payments in this law are accelerated

*Whether property--valuation per pupil--is an appropriate measure of wealth is itself a very loud theoretical debate. One side holds that income must somehow be factored into the measure of wealth.

over the schedule of payments in its predecessor; (2) levy limits are reduced from 34 to 24 mills; (3) save harmless features are incorporated to relate to declining enrollments; (4) duplicate payments to districts receiving federal impact aid are subtracted; and (5) transportation payments are incorporated in other sections of the law.

State Tuition

"Apportionment of State Tuition" is the original state aid. The fund is made up of fines, leases from school lands, and interest and income from the state school fund. It is paid to districts in proportion to children "over six years of age and under eighteen years of age" identified in a census enumeration every other year. Yield in recent years has approximated \$50 per pupil. The public school of the school district receives the payment whether or not the pupil attends public school.

Vocational Education & Special Education Payments

Payments to support vocational education programs and special education services are provided in addition to other state aids. These funds are provided on an "approved program" basis. (Plans for service are submitted by the local district to state agencies. If the plans are approved, the state agencies provide resources following provision of service.)

*Source of the funds are commingled state and federal funds targeted for these purposes.

These are relatively new and rapidly growing support areas (the amount of state revenue in 1976-77 for the two programs combined exceeded \$5,000,000). It is natural, therefore, that several questions and concerns attend financing practice in these areas--most particularly special education.

Oil and Gas Tax

The oil and gas tax is a "county" source of revenue because a certain percentage of the severance tax is returned to the county for distribution to the various local services. Less than 1% of the total tax receipts from all sources was recognized from this source in 1976-77.

Other

Schools receive additional, but minimal, revenues from both county and the state sources; their present (76-77) effect is negligible although coal severance distribution--from county sources --has been projected to grow dramatically in the near future.

The present study investigated questions related to these revenue sources. Questions of equity were considered. Problems were analyzed. Perceived ambiguity or vagueness--in the laws or in the administration of the laws--were considered. Opinion was sought regarding the revenue sources. Opinion was sought regarding how the educational finance laws might be improved. Data

which were related to the functioning of the laws over a period of time were assembled and considered.

The following three sections report that effort in summary form. More detailed reporting and data are contained in related publications.

USERS' PERCEPTIONS AND COUNSEL

Members of the legislative Research Council Committee in Education indicated keen interest in the perceptions of users when the study proposal was considered in the summer of 1976. They suggested that reactions to the "new" foundation law be solicited; they wished also for counsel in directions and comment on perceived problems.

In the proposal, plans were described for interviewing a sample of superintendents who had been in the same position from before the passage of "2026" to the present time. Superintendents were chosen as the primary data source because they were in the unique position of being able to comment on programs and personnel implications as well as on technical financial information.

Reliability checks and lay opinion were to be sought for a sample of school district clerks and school board presidents who had been in place through the period the study covered.

After the study activity commenced, two modifications in plan occurred. On advice of a statistician, the "sample" was broadened to include the entire population of superintendents, and a phone interview technique was adopted rather than the anticipated personal interview. On advice of the Advisory Committee, all superintendents of the state were invited to provide input data. The "in place" superintendents were interviewed; the others were sent a comparable (but not identical) questionnaire.

The survey instruments requested scaled responses ("strongly

agree, agree, disagree, strongly disagree") in most instances. Comment was invited on several items which resisted short or scaled responses. In interviews, comment unrelated to the survey instrument was invited. Interview lengths ranged from fifteen minutes to two hours.

The instruments were developed and tested in typical ways. The general design was to seek first a reaction to some feature of the financing program and then to seek counsel about that same feature. Wherever possible, questions were structured so that a scaled response could be obtained. The Advisory Committee considered and criticized the instrument; modification both in content and procedure followed. Internal consistency checks were incorporated and treated, analytically, with cross tabulations of related questions.

A companion monograph reports and discusses results in some considerable detail; here reported are the cumulative percentages of "strongly agree" and "agree" responses to the scaled questions--not to all questions. (Reported here are data from the interview with 87 of the 90 superintendents who comprised the universe. Data in three instances were not available or were not usable.) Short forms of the questions asked are employed in the summary table. ("Increased state share desirable" rather than "The new foundation law, when contrasted with the old foundation law--prior to 1973--generally increased the fraction of school revenue received from state sources and reduced the fraction of school revenue from local sources. In your opinion, increasing

the state's share of the burden was desirable.")

Summary of Responses to Questions Asked 87 Superintendents
of North Dakota Schools

Question	Cumulative Percentage Strongly Agree and Agree (or comparable summary of scaled response)
Quest for equalization desirable	95.4
Increased state support transportation desirable	92.0
Increased state share of support desirable	97.7
Increase state fraction of state-local-federal support mix	89.7
Increase percentage state contributes to trans- portation support	69.0
Increase 20 mill equalization factor	12.6
Continue use of cost statistics to determine index numbers	85.9
Review costs each biennium	98.9
Review cost relationships (among sizes, among levels biennially)	88.2
Proper to assist declining enrollment districts	93.1
Assistance provided by present law adequate (referring to assistance for declining enrollment)	57.6
Foundation program helped achieve/retain accreditation	80.2
Foundation program reduced cash flow problems	88.5
Foundation program increase exceeded rate of inflation	22.4
Foundation program permitted districts to increase salaries	96.6
The number of funds should be reduced	73.3
Foundation program should distinguish between sparsity small size and local option to remain small	84.9
Foundation program should reimburse for small size due to sparsity	92.0

Not included in the summary above are references to enrollment patterns or predicted program implications thereof; neither are responses to questions of what programs or services would be added or deleted if resources would increase or decrease; neither is there reference made here to interview questions about excess mill levies.

Three responses are not reported in the context of the summary. Those interviewed were presented with the statement, "The following programs should be included in and funded through the foundation program in some way." Responses indicated that 85.1%, 78.3%, and 72% responded "strongly agree" or "agree" for "special education", "vocational education", and "kindergarten", respectively; however, other data persuades the study team that the distinction was not always made between state support and state support through the foundation program.

The results for these questions, therefore, are equivocal; state support is seen as proper and desirable; an inadequacy in interview schedule design does not permit the desired clarity.

On the last part of the interview schedule, superintendents were asked to comment freely on what they thought were the main finance problems or issues concerning schools of North Dakota. From those comments a list was constructed. They are ranked in order of descending frequency:

1. Inflation
2. Declining enrollment
3. Small schools--sparsity, consolidation, more help needed
4. Transportation
5. Coal severance--impact aid

6. General state support
7. 20 mill equalization factor
8. 60% majorities
9. Property tax assessment
10. Indexes

Discussion of Results

Some general discussion of interview and questionnaire results follows.

One of the major goals of the new foundation law (2026) was to equalize school revenue across the state. When asked whether the quest for equalization was desirable, close to ninety percent of the respondents agreed or strongly agreed that the state's quest was desirable.

There appears to be a great deal of disagreement, however, on how that equalization should be carried out. Presently, under 2026, an equalization factor is employed in which 20 mills is multiplied against the taxable valuation of a district and then subtracted from the gross foundation entitlement.

Less than 15% of the respondents felt that the equalization factor should be increased or made more than the 20 mills. Over 40% said they would like to see the 20 mills reduced. Cross tabulation analysis was employed using the first question--the quest for equalization is desirable--against the other question--the 20 mill equalization factor. A large number of respondents strongly agreed or agreed on the first question but felt that a reduction of the 20 mill equalization factor was desirable.

There was some difficulty in interpreting the equalization

factor question because a considerable number answered "don't know". While discussing the question during the interview process, most of the interviewees discussed what the 20 mill equalization factor was doing to their particular districts. A perfectly natural concern! In light of inflation and other factors most of the interviewees looked at the 20 mills as reducing revenue for the individual district, not as an equalization factor for the state.

Several questions dealt with the major efforts of 2026 to increase the fraction of school revenue received from the state and reduce the fraction of school revenue from local sources.

A very strong majority, over 94%, strongly agreed or agreed that increasing the state's share of the burden was desirable. When asked what the future trend should be in state funding, a strong majority indicated that the state's share of the funding should continue to increase. A majority felt that the state's share should increase significantly, while another 30% of the respondents said that it should increase slightly. A very small percentage, 10%, would have the mix of state and local remain the same. None wished the mix to revert to a greater fraction from local sources.

Many of the respondents took the opportunity during this question to voice their difficulty in increasing local property taxes, especially where 60% majorities were required. This seemed one major reason for needing more state support.

Another major concern, inflation, was suggested in another

question dealing with the level of state support. When asked if the state increases in per pupil support had kept pace with the rising rate of inflation, over 75% said that the increases had not exceeded cost of inflation. Inflation was also frequently mentioned in conjunction with questions relating to progress and improvement of programs.

Has the "new" foundation program helped the schools? One superintendent responded, "What would we have ever done without it!" Two questions on the interview specifically substantiated this general feeling that the program has helped schools a great deal. Greater than 80% of the respondents agreed that the foundation program had helped in either improving or retaining their present level of accreditation. The strength of this response becomes even stronger when considered in light of inflation and declining enrollments.

Another area in which the new foundation law was perceived to have helped "tremendously" was in improving teacher salaries. Over 96% of the respondents felt that the resources made available under the new law permitted salary increases more than would have been the case under the previous law.

Transportation is a large portion of the total budget in many school districts. "2026" increased the amount of state support for transportation. When asked if this was desirable, over 90% agreed that it was. A second question asked for future trends in state support of transportation to which a slim majority would have it increase slightly but another 15% would not only have it

increase but preferred that the state assume all the costs of transportation.

Several questions were directed towards the index numbers which are employed to distribute funds on a cost basis in the various levels and sizes of schools in North Dakota.

A strong majority felt that the present method of distributing funds, on a "cost basis", was the correct and proper method. Strong majorities also felt that these cost relationships and costs per child should be reviewed each biennium to determine whether index numbers and support payments should be adjusted.

In the area of declining enrollments, a majority of superintendents sampled said that their schools had declining enrollments during the last five years. On a question of future trends it was indicated that declines would continue over the next five years. The drafters of the new foundation law recognized that problem. The law states, "No school district shall receive less in foundation program per pupil payments for any one year than such districts would have received in such payments based upon the enrollment in such districts in the previous school year." Over 90% of those sampled felt that this was a proper part of the foundation law. However, there was mixed reaction as to whether the assistance provided was adequate. An almost even split was observed between those agreeing and those disagreeing.

A vital area of the schools is that of course and program offerings for students. A number of questions were aimed at determining how the increased foundation support had affected

courses and programs.

A specific question was given the ninety superintendents because of their knowledge over time of program changes which had occurred. A much more general question was given to the remainder of the population.

Superintendents perceived that many areas of the school had made gains; however, secondary level programs most frequently showed gains over the past five years. This particular area (9-12), in seeming contradiction, also had one of the highest reduction of service rates (10%). The apparent reasons include the increase in vocational offerings and decisions relating to declining enrollments respectively.

Extra-curricular ranked second in program additions. The reason cited most often was Title IX and the consequent increase in girls' athletic programs.

Reduced student-teacher ratios were perceived related to enrollment decline rather than a conscious decision to reduce ratios. In fact, reduced student-teacher ratios were perceived as a generally negative factor. Many classrooms are already at very manageable sizes and further student reductions simply increased unit costs.

Overall, most superintendents were reluctant or unable to suggest a specific single cause for program changes. State support, in general, was perceived to help improve programs while inflation and declining enrollments pushed programs in the other direction.

The population which received the questionnaire responded to

a general question on whether programs had improved, remained the same, or decreased over the last five years. A majority of this population of clerks, board presidents, and superintendents answered that it had improved slightly. Echoing those superintendents who were interviewed, the major reasons cited were increased state support, vocational centers, local management, and local effort. Inflation and declining enrollments were mentioned as holding the schools back.

Question fifteen was designed to determine those areas of the school perceived to need improvement over the next five years. What would you add if you had more dollars, we asked. Courses or programs in grades 9-12 received the overwhelming top priority choice of the respondents. The specific types of improvements cited most frequently in this area were vocational education, industrial arts, additional electives, and art.

Least perceived need was for additional extra-curricular activities. They received the lowest percentage of top priority rankings and at the same time a very large portion of the low priority rankings for improvement.

Decreasing the student-teacher ratio also received a low priority because declining enrollments are already depressing the ratio.

Another question approached the value of programs from the opposite side. When asked which programs would be cut if the amount of funds was reduced, courses or programs in grades 9-12 were mentioned most frequently as the first choice of areas to cut.

Specific cuts mentioned in the area in order of frequency were: vocational education, industrial arts, foreign language, and art. Apparently, some last-in-first-out mentality exists relating to programs.

The second area of the school picked to be cut was that of extra-curricular. It might be pertinent to note that some of the respondents would not cut extra-curriculars because, as they stated, in their schools these programs were virtually self-supporting.

Programs and services for K-8 were low on the cutting priority. This was a consistent finding across several questions and rankings. A frequent comment was that the elementary (K-8) grades needed to remain very strong.

Interesting results were obtained for several of the miscellaneous questions. One inquiry dealt with the 25 separate school funds provided for by state law. When asked if the number of funds should be reduced by combining them, a majority responded in favor of reduction. A considerable number disagreed saying that, although it was an accounting headache, it was easier communicating financial needs to voting patrons through the use of separate and designated funds.

Two questions dealt with small schools, efficiency and sparsity. A strong majority responded in favor of distinctions being made between schools which lack efficiency because of distance and sparsity and schools which lack efficiency because of their local option to remain small.

An even stronger majority said that the foundation program should make an effort to reimburse small schools which are necessary because of sparsity and distance to the next school. Consideration of criteria to define "geographically isolated" schools should receive further study.

This general discussion of users' perceptions is augmented by considerable detail and additional discussion in a companion monograph.

WHAT HAPPENED?

A major goal of the study was to assess the impact of the 1973 foundation law. To pursue this goal the following questions were framed:

1. How do programs compare over the experience period?
2. How do professional personnel, numbers and qualifications, compare over the period?
3. What is the experience in district consolidations and annexations over the period when compared to a period of the same duration previous to the adoption of the statute?
4. Do statewide test data over the period suggest any discernable differences or directions?
5. How do expenditures compare over the experience period in dollars and in comparable dollars?
6. How do district expenditures at the extremes (low expenditure, high expenditure districts) compare before and after the program? Have effort ratios modified?

The response to the questions above required aggregating and considering a mass of data. The information was available from the Department of Public Instruction. The challenges lay in determining what information was pertinent, by what means it could be retrieved, by what procedure it was to be processed and in what form it was to be reported.

Each of the questions invited use of many variables. Although it is possible to argue the merit of the variables which were not considered, an attempt was made to select those which appeared to be most relevant as reflected in an initial review of the data.

It should be noted that at the time of the drafting of this

summary not all of the questions posed above had been fully answered. The processing of the data relative to expenditures and district efforts had not been completed. Absent also in this summary is the final analysis of the effect of the foundation law on the ability of the districts to respond to the accreditation standards promoted by the Department of Public Instruction.

A goal for the "new" foundation law, expressed many times during legislative hearings, was to increase the educational opportunities for all the students in the public schools. The study team employed several methods to determine whether that goal had been achieved.

At the secondary level, an attempt was made to ascertain whether the increased state support led to an increased number of course offerings. To facilitate the analysis the schools were divided into the four size groups recognized by the law for the assignment of indices: Group I (less than 75 students), Group II (75-149 students), Group III (150-549 students), and Group IV (550 students and greater). The same size designations are maintained throughout the study.

An analysis of the course offerings over the experience period indicated the least increase of course offerings in Group I (0-74) going from a mean of 19.42 to that of 19.89 over the five year period (1972-1977). Group II (75-149) increased its offerings from a mean of 26.86 to that of 28.06. Group III (150-549) increased the mean of the group from 36.73 to 41.29.

The data for Group IV (550 +) is more difficult to interpret.

If the multi-high school districts are removed from consideration, the mean number of offerings moved from 64.72 to 90.72 over the five year period. If the multi-high school districts are included, the mean increased from 72.27 to 104.96 in the same period.

The summary data for all the schools appear to indicate the most significant information. These data show the means in the following order for the school years 1972-73 through the 1976-77: 28.53, 30.70, 31.11, 31.87, and 31.81. Course offerings peaked in 1975-76; some reductions were noted in the final year. Enrollments at the secondary level do not explain this pattern because the level remained relatively constant during the period.

All size levels experienced increases in opportunities when judged by the increased number of course offerings. The least gain, however, was experienced where the initial programs were most meager. Considerable within-category variance was noted.

It was also felt that such factors as persistence in education (enrollment in post secondary programs) and the high school drop-out rates were indirect products of educational opportunities. Data were not available in these two areas for the first school year of the experience period--1972-73. However, the data for the next four years were analyzed.

It was found that there was no significant increase in the percent of boys or girls who attended a four year institution following graduation during the four year experience period when studying the combined means of the four groups. It was also noted that there was no significant difference relative to the groups

for the boys. It did appear, however, that the two smaller size categories did have a larger fraction of girls attending a four year institution than the two larger size categories. The information reported above was supported in summary data which reported the combined results for girls and boys by size and by year.

An analysis was also made pertaining to enrollments of students in vocational programs after graduation. This information was available for only the last four of the five year experience period. There was no significant change in the fraction of boys attending vocational programs within each of the four size categories. It should be noted, however, that a slightly higher fraction of the boys persist from the three smaller size categories.

The data on girls participating in vocational programs are somewhat more difficult to interpret. In both of the two smaller size groups the percentages held quite constant up to the last year, at which time both groups dropped dramatically. The two larger size groups held steady throughout the experience period. Prior to the drop, Group I (0-74), Group II (75-149), and Group III (150-549) reported a greater fraction of attendance than Group IV (550 +). The drop by Group I and Group II left the third group (150-549) with highest percent of attendance by girls in vocational programs.

In an overall analysis for both boys and girls across the four size groups it would again appear as though a slight decrease occurred in the mean score of Group I (0-74) and Group II (75-149) during the last year of the experience period. The overall

percentage mean for the boys and girls for the four year period was 18.96. The mean for the girls was 17.63 and for the boys it was 20.01 for enrollment in vocational programs.

An analysis was made of the dropout statistics which were available only for the last four years of the experience period. Caution in the interpretation of the data is suggested for several reasons. The first relates to irregular reporting practices. The second is that the compulsory attendance law mandates attendance until age sixteen. The second factor invalidates cross grade comparisons, especially when comparing early grades to later grades.

The data revealed a slight increase in the number of dropouts at all four grade levels when comparing all students in all schools regardless of school district size. When converting the number of dropouts to a mean drop rate in percent, it was found that the amount of increase was similar for all grades. The increase was from 0.779 to 1.333 in grade 9; 1.532 to 2.169 in grade 10; 1.918 to 2.566 in grade 11; and 1.933 to 2.543 in grade 12 during the four year data period.

The data presented some interesting trends among grade levels and size categories. For example, there appeared to be a slightly higher drop rate for Group I (0-74) and Group IV (550 +) than for the two middle categories in grade nine and ten. At the eleventh and twelfth grade level Group II (75-149) and Group IV (550 +) had the largest drop rate. Most intriguing was the consistently lower dropout rate for Group III (150-549) for all grade levels and for all four data years. Further analysis is warranted relative to

dropout rates.

One point should be made quite forcefully relative to dropout statistics. The experience in North Dakota is very good for all school sizes and at all grades levels when compared to national statistics. The National Center for Educational Statistics (page 7, Fall 1976) reports that, "The 1975-76 graduates represented 75.0 percent of the 9th grade class in fall 1972." A comparable statistic for North Dakota during the data years examined would exceed 92%.

An attempt was made to determine whether statewide test data over the period suggested any discernable differences or directions. The mean test scores for each single high school district which participated in the state testing program for grades nine and eleven during the five year experience period were considered. Multi-high districts were eliminated from the sample because no district mean could be obtained. Approximately 80% of the high school districts administered the Iowa Test of Educational Development--a standardized achievement test--as a part of the state testing program.

The nature and limitations of the data in this part of the study necessitate a very cautious approach to their analysis and interpretation. Basic to this concern is a very limited number of cases reported in some size groups (Group IV 550 + had only one case). Moreover, the data for each year are based on a different group of students than that of the previous year. No attempt was made to follow the same group of students through the study

period since no data existed which would have permitted such analysis.

A very slight downward drift for the mean of all scores was discerned but the mean differences were not statistically significant--the drift may have occurred by chance. When the mean scores by size categories were graphed, the crossed lines looked like the work of a crazy macrame artist. No consistent superiority nor consistent inferiority for a size group could be discerned. It was judged these data did not warrant further analysis or consideration.

Another factor considered critical to quality instruction is the availability of a sufficient number of qualified staff members in relation to the number of students. Trends relative to student enrollments, staff positions and pupil-teacher ratios were considered. The analysis revealed some rather surprising data. Contrary to what had been expected by the study team, it was found that there was no significant change in secondary student enrollments in the five year period on an overall comparison for the four size categories. The smaller three groups showed a slight student increase during the period while Group IV (550 +) showed a decrease. Overall the total enrollment remained nearly constant.

A comparison of total staff positions shows similar consistency. In the five year period Group I decreased its mean of secondary staff positions from 4.99 to 4.76. Group II increased the mean of positions from 7.61 to 7.98 and Group III increased the mean of positions from 13.75 to 14.53. The mean for Group IV

moved from 56.10 to 57.21. The slight increase in the number of positions in Group I and Group II may be explained by a corresponding increase in student enrollment in these groups during the same time period. It should be noted that the number of positions held relatively constant in Group IV even though enrollments declined. However, one should not jump to conclusions relative to the accuracy of this trend until one considers the pupil-teacher ratios reported next.

During this same five year period, the pupil-teacher ratio at the secondary level changed from 9.64 to 9.71 for Group I; 13.74 to 13.72 for Group II; 17.42 to 16.74 for Group III, and 21.68 to 20.30 for Group IV. It could be concluded from the statistics noted above that relatively little change took place in the pupil-teacher ratio at the secondary level with the application of the 1973 foundation law. A detailed analysis of related elementary data had not been completed at the time this report was composed. It can be reported, however, that elementary pupil-teacher ratios declined. In large part this related to declining enrollments which were not balanced automatically by reductions in staff.

Unique to the 1973 foundation law was a provision which allocated a higher level of per pupil support to smaller sized high school districts. The payment size was calculated by applying the following weightings:

- 1.70 for 74 or fewer students in ADM
- 1.40 for 75-149 students
- 1.32 for 150-549 students

1.20 for 550 students and above*

Concern was expressed immediately, suggesting that such index numbers or weightings would encourage small districts to remain small--not because they were necessary, but because they were made comfortable. This concern was often expressed as a fear that reorganization (a practice thought to improve efficiency) would slow down or stop.

The study group researched available data to determine whether the present foundation program has in fact encouraged the continued operation of a large number of small schools.

An analysis was made of the minutes of the State Board of Public School Education meetings for the period of time extending from July 1, 1967 through June 31, 1977. The data were reviewed for the ten-year period to allow for a more extended longitudinal analysis. The number of reorganizations occurring during those years is reported as follows: 1967-68=2; 1968-69=4; 1969-70=2; 1970-71=1; 1971-72=1; 1972-73=0; 1973-74=0; 1974-75=0; 1975-76=0; and 1976-77=1.

There was a slow-down in reorganization; however, reorganization is only one method by which organization can be changed; dissolution of districts and annexations to other districts also reorganizes in a general sense.

*Safeguards were included so that a district was not tempted to reduce student population to effect higher ratios. For example, 73 students @ 1.70 would yield more "weighted units" than 76 students @ 1.40 without these safeguards. Different weightings were developed for elementary and junior high levels; not all these weightings were indirectly related to size.

The following figures indicate the number of annexations, dissolutions, and reorganizations approved by the State Board of Public School Education involving more than ten sections of land during that same ten year period: 1967-68=27; 1968-69=23; 1969-70=31; 1970-71=28; 1971-72=19; 1972-73=9; 1973-74=8; 1974-75=12; 1975-76=11, and 1976-77=5.

The data reported above reflect a decrease in the frequency of changes in school district boundaries over the ten year period. It has been suggested that there may be a causal relationship between the present foundation program and a decrease in reorganizations, annexations, and dissolutions since it went into effect in 1973.

On the other hand, at some point distance renders further consolidation unattractive. At least many districts--some with small student populations--have geographic sizes which argue against combination. Additionally, efforts to provide cooperative programming, in special education for instance, permits districts to both provide service and retain identity.

Moreover, there are other "disincentives" to reorganization--like the "loss" of the excess levy authority or the step down in indices (two schools which have indices of 1.32 and 1.70 respectively when combined have an index of 1.32). These factors need identification and attention. If index numbers delay reorganization, they are not the only factor contributing to delay.

No doubt there should be continuing exploration of modified arrangements for smaller schools--from cooperative service to

reorganization. The study team, however, was not prepared to suggest abandonment of the index system simply because it could be argued that such a system may contribute to a delay in reorganization.

Accreditation data for a sample of schools in each size and type category were assembled. A general conclusion can be stated: the small high school district has the greatest difficulty--when compared to all high school districts--in achieving and in maintaining accreditation standards. In general, the larger three sizes averaged achievement of between 90% and 95% of secondary school accreditation standards in each category and in each year considered. The small high school district managed, on the average, to achieve between 80% and 85% of accreditation standards.

At the elementary level, rural and graded elementary schools achieved fewer accreditation standards, on the average, at the end of the study period than at the beginning. Further analysis of elementary accreditation data are warranted.

Considerable within-category variation of achievement of accreditation standards was detected. That is, variance was not described by averages. Accordingly, the study team determined that additional analysis of the nature of--and perhaps the cause for--variance might be identified and described.

In summary, the study team attempted to ask the question, "What Happened?", in a number of ways. Data were assembled to attempt to discern trends or directions. Data were displayed frequently by size categories.

Frequently the response to the data display was "Nothing happened," or "Nothing significant can be discerned." Sometimes trends were discerned but no clear consequence of conclusion emerged. Sometimes there were data problems (one set of recommendations related to ambiguities and data problems which require attention).

Perhaps the single most compelling impression, derived not from an analysis of a single variable but rather from the aggregation of analyses, was the concern for the small school and especially the small high school. While comparisons were favorable on output measures--test scores, drop-out rates, persistence--difficulties were perceived on input elements--course offerings, staffing, accreditation standards. Moreover the difficulties were perceived to be increasing. Predicted enrollment declines at the high school level for many of these schools will certainly intensify the difficulties already apparent.

PROBLEMS

This section contains discussion analyzing several questions. Considered here are educational finance issues related to distribution of mineral tax resources, educational finance problems related to assessment practices, and educational policy questions raised by the introduction of disparity and wealth neutrality standards. Less protracted discussion relating to other--albeit less complex--issues is also included. Those discussed are: Aid for dependent children (AFDC) concentrations, special education typology concentrations, multiplicity of levies for special funds, and transportation costs.

Mineral Tax Resources (Oil and Gas and Coal Extraction)

Initial study revealed the educational finance issues surrounding mineral taxes were extremely complex and any comment regarding the issues was likely to provoke concern.

Several activities were undertaken to try to comprehend the issues: the legislative council minutes detailing testimony and deliberation surrounding oil and gas and coal tax decisions were read; taxing and distribution practices in other states were studied; projections for the future--particularly regarding coal revenues--were acquired and considered; distribution data of tax receipts to schools--in the case of oil and gas--were studied.

Several across states-general-themes grew out of this activity: the problems of equity seem difficult everywhere; in general,

schools share in mineral taxes; in general, support for impact and support after depletion are legislative concerns; systems for taxing vary considerably.

In North Dakota, compensating for impact has been a continuing theme; revenues are projected to grow rapidly in the next couple decades; concerns regarding distribution formulae have been a recurring phenomenon.

Discussion of the distribution of the money from mineral resources will be difficult because there will exist the suspicion (probably accurate) that the areas which do not have distributions would like to secure them. In this connection it should be observed that taxes on mineral resources do fund general state government more than they do local units of government so all state citizens share handsomely, if not directly, in taxes on these mineral resources. But this leaves the question--should districts in areas affected share directly in mineral taxes? The study group would answer, "Yes." Why? Because unlike most industry the extractive industries pay a severance tax rather than generating an increment of property wealth which is then taxed as a property. Since, in the latter instance, districts (and municipalities and county government, too) have authority to order mill levies, their action generates dollars based on original property wealth and on these increments of wealth. The increment of wealth is not available where the severance tax is to provide support "in lieu of property tax". Equity--and logic--would suggest return of at least some portion of the severance tax to local units of

government.

Having said that, we must point out that the present system of distribution in the case of schools presents some problems which invite analysis and comment. (The study group has no data nor opinion to suggest whether any of this argument has implications for units of government other than schools.)

The present system of distribution in the case of oil and gas revenues and in the case of coal revenues is related to average daily membership or average daily attendance in the county of extraction. About six percent of the original tax (there are significant differences which are elsewhere detailed) goes to support schools. For purposes of illustration, suppose three schools existed in the county where the school portion of the severance tax was \$27,000. Suppose there were six hundred students in average daily membership (ADM) but that they were distributed 300-200-100. The resource would be distributed in the manner suggested by the accompanying chart.

Illustration of Severance Tax Distribution of a \$27,000 School Portion for 600 Students in Average Daily Membership

	<u>Dist.</u>	<u>ADM</u>	<u>Support</u>
$\frac{27,000}{600} = \$45 \text{ per pupil ADM}$	1	300	\$13,500
	2	200	9,000
	3	<u>100</u>	<u>4,500</u>
		600	\$27,000

One could ask several questions at this point: would \$45 be an appropriate figure for an in lieu of property tax support? Too

much? Too little? Should all districts in the county share equally in this support? Did they all share equally in the school costs associated with the severance activity? Was there a town across the county line which incurred costs but which received no support?

The system described is the system employed for the last twenty-five years (approximately) for the distribution of oil and gas tax (though the formula is much more detailed--and confusing--than the one described).*

The study team is persuaded that some districts have not yet recovered costs associated with the exploration, drilling, and operating impact while others have; still others have benefited generously. The system supports all students in a given county equally no matter what the amount of--and costs for--impact.

Not accidentally, another concept has been introduced: impact. The study team will suggest that the legislature consider employing an "impact basis" for the distribution of coal (not oil and gas) tax dollars in the case of schools.

Some attention should be given to the definition of and assumptions about impact.

Impact means the effect of one thing upon another (here coal extraction activity on school enrollments and school costs). The

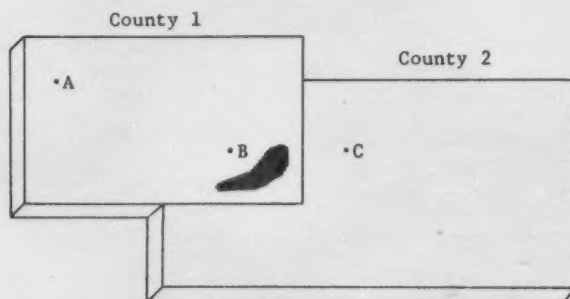
*In brief, the state takes 20% of the tax (1% of the gross). Of the next \$200,000 of tax generated, 25% goes to the state general fund, 75% to counties where oil is severed; of the next \$200,000 the split is 50-50; of the remainder (that over \$400,000) the state gets 75%, the county gets 25%. Of the county portion, schools get 45%.

assumptions relating to distributions of support related to impact include the belief that (1) impact can be measured (census count of youngsters served, for instance); (2) that support ought to occur where the impact occurs (if this impact is greater in District A than in District B the support should be greater in District A than in District B); (3) that support ought to occur when impact occurs or can be anticipated to occur; and (4) that support level can be calculated to approximate a fair level of reimbursement for the property resource lost.

Additionally, some attention needs to be paid to extraordinary impact (as rapid growth), varieties of support levels for various kinds of impact, and to treatment after depletion.

But before moving too rapidly to proposals for addressing the problem, let us return to analysis of the problem--why the study team believes attention to the distribution of coal severance resources is crucial.

Consider this illustration:



Suppose County 1 had townsites A and B, and County 2 had townsite C. Suppose further that a coal field existed "south" of

town B in County 1. Suppose also that activity started--activity intending to use the coal--but that construction activity preceded extractive activity by five years; moreover, construction employed 1,000 while operation employed 100. While none of these figures is intended to resemble any real circumstance, the data are not unlike projections contained in "scenarios" prepared for study group analysis by the Regional Environmental Assessment Project (REAP).

Five different problems could be anticipated given the present distribution system (if one accepts the impact assumptions):

1. Town A could receive support but no impact;
2. Town B could receive both impact and support, although the impact and support may be unrelated to each other; the support may be not enough or more than enough to compensate for impact;
3. Town C could receive impact but no support;
4. The support could be received untimely (after the greatest impact had occurred--after construction but during operation);
5. The support system would complicate the quest for "wealth neutrality" (this is a related issue discussed in another section).

If an impact basis for support were developed, would all schools in the state get support from this source? No, support would be channeled to the schools which have impact in proportion to that impact.

The study team recognizes that the suggestion of an "impact basis" for distribution of school portion of mineral tax support is a significant departure from the present system. The very

novelty will concern some. Moreover, even if the argument to this point is accepted, difficult problems remain. What is a fair (equitable) level of support? Won't this mean "forward funding"--paying for impact before tax resources are realized?

The questions are appropriate. In the first case we will argue that some relationship of support to state average local support from business and agricultural activity be considered. In the second case, the answer is "yes"; we do believe the support should be there when the students are, not after they have gone.

Still another problem: Why focus on coal and exempt oil and gas?

Coal presents some unique problems--notably a prolonged construction phase preceding an operational phase. Attention to problems during the construction phase seemed warranted. Also, some of the mistakes made in the oil and gas system were avoided in the coal system--notably the provision for facility construction support where "extraordinary" impact could be demonstrated.

The state has survived since the early 50's with a flawed oil and gas system for supporting educational costs. The study team remains persuaded the system is flawed and should be restructured (some should get more, others less). However, the data are not now in hand--nor are they believed to exist elsewhere--to propose how the system should be changed. More study seems warranted. In the spirit of what has preceded, impact and cost need to be determined retroactively and considered against aggregated (already realized) support; only then can a more equitable system be

devised. We are not prepared, presently, to judge whether this can be done in a defensible manner.

Property Assessment and Educational Finance

Property assessment for tax purposes is the procedure by which an estimated value is placed on a piece of property. To determine the rate at which the property is assessed in relation to market value, actual property sales are analyzed. The assessment sales ratio is determined by dividing the assessed value by the selling price and expressing the decimal as a percentage. This process is done by selecting property for this analysis in an entire county and providing an assessment sales ratio figure for each county in the state. For 1976 the assessment sales ratio average in North Dakota was 12.3 percent. State law requires a 100 percent assessment rate.

Assessment rates are important to the educational process in North Dakota; much of the revenue is a direct result of property taxation which is obtained by multiplying a mill rate times one-half of assessed value (the "taxable value"). If the mill rate is limited by statute, then the amount of revenue available to a district is a direct result of the assessed value of property. As long as the mill rate can be adjusted without limitations, the net effect on total revenue for a school district is not affected. However, this is not the case for the majority of the school districts in North Dakota. Only a few districts have unlimited mill rates, and even in those districts there are maximums placed on

the bonded indebtedness for school facilities.

The problems associated with uneven assessment within a taxing district can be partially solved by better trained assessors and by the equalization hearings held within the taxing unit.

A more urgent problem is the general under-assessment of property and the trend in assessments in taxing districts. The percentage that assessed value is of actual selling price has been steadily declining in North Dakota. According to Tax Department data, the average assessment sales ratio in North Dakota has fallen from 19.1% in 1972 to 17.4% in 1974 to 12.3% in 1976. It is clear that a trend has been established.

A persuasive argument can be made that present assessment sales ratio data are imprecise and incomplete. A better method of gathering data upon which the assessment sales ratios are based seems to be needed. Some states require that the purchase price of all property upon which a property tax is levied be reported on a special form to the group that computes the assessment ratio. Space is provided on the form for indicating why the sale was atypical if it is felt that the selling price was not at fair market value. Even where incomplete sales data are available, appraisals may be required to supplement assessment sales ratio data.

Assessment practices which set values affect the amount of foundation aid received from the state. The greater the under-assessment, the less the deduction based on the 20 mill local deduction, and thus a larger state payment.

Bonding limits are also a direct reflection of assessment

rates as the limits are set at 10 percent of assessed valuation.

The income from "leeway" mills is also a direct reflection of assessment practices. The higher the assessment rates, the higher the income per mill. The building fund is also affected in the same way.

The continued erosion of the tax base because of under-assessment will have undesirable effects on public school finance. Attention to the problem is needed. It is clear that some people in North Dakota have become very conscious of the assessment problems as indicated by the growing concern expressed in news articles and court action. The recommendations of the state tax department deserve consideration.

Many data were gathered to study assessment practices. A companion monograph contains tables of data which were developed to analyze the nature of the problem in several ways. The following discussion states perceived "solutions" to problems identified.

One solution to the problems and inequities of inconsistent assessment practices is to make them consistent. If assessment practices cannot be made consistent, the next best choice is to secure information (assessment sales ratio data) to permit their being equalized. If assessments cannot be equalized, adjustments to increase their equity must be considered.

One such adjustment now occurs when the 21 mill county levy is "factored" to account for different assessment levels in counties. The following formula and example describe this procedure:

$$\frac{\text{Average assessment ratio in the state}}{\text{Assessment ratio for the county}} \times 21 \text{ mills} = \text{county millage.}$$

Example: if the county average assessment ratio were 14.1% while the state average assessment was 12.3%, the "21 mill" levy would become 18.32 mills.

$$\frac{12.3}{14.1} \times 21 = 18.32$$

Similarly, the 20 mill equalization factor could be adjusted in a couple of different ways. Suppose a school district embraced property in three counties which had characteristics shown in the following illustrations:

	<u>True Value</u>	<u>Assessment Rate</u>	<u>Assessed Valuation</u>	
County 1	1,000,000	12%	120,000	
County 2	5,000,000	13%	650,000	State Average Assessment Ratio = 12.3%
County 3	<u>2,000,000</u>	15%	<u>300,000</u>	
	8,000,000		1,070,000	

Calculate the relationship of assessed value to total value:

$$\frac{\text{Assessed value}}{\text{Total value}} = \frac{1,070,000}{8,000,000} = 13.38 \text{ district average}$$

Calculate the relationship of state average assessment to district average assessment and adjust the 20 mills accordingly:

$$\frac{\text{State average}}{\text{District average}} \times 20 = \frac{12.3}{13.38} \times 20 = 18.39$$

The district would have its entitlement reduced by 18.39 mills rather than by 20 mills.

An obvious problem with the system is that the property with the low assessment compared to the state average (as County 1) would benefit because of its association with other property in the same district which was assessed at a higher rate than state

average.

Suppose County 2 were at 10% rather than 13% on the assessment ratio. This system would then require that the 20 mill adjustment would become 21.39 mills (\$920,000 would be the total assessed valuation):

$$\frac{920,000}{8,000,000} = 11.5 \qquad \frac{12.3}{11.5} \times 20 = 21.39$$

The residents in County 3 would then be punished by their association with Counties 1 and 2 even though County 3 assessed at a ratio higher than the state average.

A variant of this logic which could be considered is an "application for equalization factor adjustment" system. Districts which encompass areas where assessment ratios exceed the state average assessment could apply to reduce the 20 mill equalization factor. For illustration purposes, consider this district with property in two counties:

	<u>Assessed Valuation</u>	<u>Assessment Rate</u>	<u>Derived Full Value</u>	
County 1	320,000	16%	2,000,000	State average assessment = 12.3%
County 2	<u>420,000</u>	14%	<u>3,000,000</u>	
	740,000		5,000,000	

$$\frac{\text{Total Assessed Value}}{\text{Full Value}} = \frac{\text{Average assessed Value for the District}}$$

$$\frac{740,000}{5,000,000} = 14.8$$

$$\frac{\text{State Average}}{\text{District Average}} \times 20 = \text{adjusted 20 mill levy}$$

$$\frac{12.3}{14.8} \times 20 = 16.62 \text{ mills}$$

Only those districts in high assessment areas would apply for the 20 mill adjustment (unless someone wished his entitlement deduction to increase). This system would not punish the district that was assessed above the state average; however, it would still reward the district that was assessed below the state average.

But the system might tend to encourage a central tendency for another reason. Leeway mills do not raise as much when assessments are at or below the state average assessment; while the district is advantaged when assessments are low vis-à-vis the foundation program, it is not necessarily similarly advantaged where millage limits and low valuation combine to restrict capacity.

Assessment practices affect other domains. A critical problem for a few school systems relates to debt capacity. If assessment ratios changed in a particular district from 15% to 10% and nothing else changed, the debt capacity of that district would have been eroded by 33-1/3%:

$$\frac{15 - 10}{15} = .333$$

This erosion has been occurring while costs for buildings have been moving in the other direction.

To provide greater comprehension of this effect and its consequences, the study team developed a "case-study" called "Construction of School Buildings and Facilities". That case study is contained in a companion monograph.

Finally, wherever millage limits are placed on funds this reduction of assessment ratio produces the erosion effect.

Again, the whole area of assessment practices needs

attention. One superintendent told the study team, "Consistent and fair assessment practices are the foundation of an equitable school finance system. Without that foundation, forget it. . . ."

Disparity and Wealth Neutrality Standards

During World War II, federal defense activity placed considerable strain on the financing of certain local services, including schools. The "Lanham Act" was passed by Congress in 1941 to compensate school districts (and other local services) for construction, maintenance, and operation costs associated with federal activity. In 1950, that legislation was replaced by PL 815 (capital costs) and PL 874 (operational costs) for districts impacted by federal activity.

Since the federal government does not pay a property tax, 874 payments have been considered an "in lieu of property tax" support. The entitlement levels for 874 are calculated to approximate "local contributions" to the support of education.

In theory, these local contributions aggregated with state support would provide comparable and equitable school programs for federal dependents identified in an annual census.

It has not always worked that way. Sketching the history briefly will ignore many of the difficult transactions among state, federal, and local education agencies.

However, some sense of where we have been seems necessary to suggest where we are now.

Following the adoptions of 874, some states (not North

Dakota) decided there would be no--or very little--state contributions to the educational costs for federal dependents. The federal government responded to this perceived disadvantaging of federal dependents by requiring that the state "could not take into account" federal supports in the financing of elementary and secondary education.

This enactment had the potential effect of providing advantage for federal dependents in some states. North Dakota was one such state.

This occurred in North Dakota because foundation support was a combination of state and county money; entitlement from the federal government permitted counting district and county money as local contribution. Affected districts could, in effect, get the support from the county portion twice--the so-called "duplicate payment".

North Dakota legislated to provide a "duplicate payment reduction". State law confronted federal law which held that states "could not take into account" federal supports (there existed no practical way to exempt North Dakota from the general federal regulation even though the uniqueness of the county financing element created the difficulty).

Disaster for local districts with heavy federal impact was avoided by a "Burdick-Dole Amendment"* (Kansas was also affected) which exempted certain states from the operation of the federal

*Incidentally, this brief history is not the whole story! PL 874 has been amended almost thirty times.

provision temporarily.

Meanwhile, the equalization movement was placing pressure on all states to take into account all revenues to structure a more equitable system.

Federal law was amended to permit states to take into account federal supports if certain standards were achieved, certain regulations met (remember the federal government had some earlier negative experience when no regulation or standards were imposed).

That is where we are now. We as a state are obliged, on threat of losing federal support for local districts, to meet either the "disparity test" or the "wealth neutrality standard". Meeting one or another of these tests is considered a proxy for an acceptable system for taking federal payments into account.

The disparity test, described briefly, holds that there shall be no more than 25% difference in expenditure or revenue between the school which is at the 95th percentile in state per pupil costs and the school which is at the 5th percentile in per pupil costs. Calculations revealed the least disparity which could be ascribed to North Dakota schools according to this standard for 1976-77 was 58.51%.

The wealth neutrality standard holds that the revenues provided for education should be equally available (distributed neutrally) to all students of the state. Equal efforts should yield equal dollars. At least 85% of school revenues must be neutral to meet the standard. (The definition and the calculation are both much more complex; some sense of the rationale may be communicated

if you know that if 1 mill raises \$1.50 per-pupil in the poorest district and \$3.50 in another district, \$1.50 would be "wealth neutral" in both districts, but \$2.00 would not be wealth neutral in the second district.)

Federal support for impacted schools is jeopardized. In North Dakota approximately \$6,000,000 per year is distributed among 74 districts. The majority of this support, however, goes to approximately twelve districts. These heavily impacted schools have a considerable stake in the state's achieving one of the standards.

In recognition of this importance, the study group devised formats for deriving appropriate data for conducting the tests. The data were collected and analyzed to determine what actions would seem prudent to consider if the tests were to be met over time. In the process the study group assisted in doing the arithmetic problem which resulted in the federal ruling that North Dakota had 87% of its revenues in the wealth neutral category in 1976-77--the standard was met. (A later refinement of that calculation yielded the revised estimate of 88.6% rather than 87% of North Dakota revenue being neutral.)

These regulations will need attention; the tests are to be applied annually.

One feature of this whole concern is extremely interesting. While jeopardy is local (that is, dollars targeted for operational support in local school districts are threatened) action to modify disparity or increase neutrality can occur only through state--not

local--actions.

The Department of Public Instruction will need to systematize its monitoring capacity for these statistics. Corollary tasks include informing legislators and affected school districts. This attention function would ensure the continuing vigilance--and perhaps continuing work--this subject seems to require.

Other Problems

Additional questions were the subject of brief study--mostly data gathering, analysis, and discussion.

AFDC Concentrations

In our analysis of possible concentration of AFDC (Aid For Dependent Children) students, we did not find significant variation among districts which would warrant recommendation at this time. Heavy incidences were recognized in schools with high concentration of Native American students. Funding mechanisms for these schools are already distinct. The conclusion here is that this finding might be better addressed by aid to Native Americans than to AFDC children.

The standard employed in the analysis was a "high" standard. Students considered in the analysis were those in homes receiving in excess of \$2,000 in AFDC payments. This is the standard employed for Title I eligibility. The universe of students would have been increased if any AFDC support had been the criterion. The stricter standard had the advantage, it was believed, of

providing a better proxy for disadvantaged.

Special Education Typology Concentrations

In our analysis of possible concentration of students with handicapping conditions, we did find instances where incidence for a given district exceeded anticipated incidence (when compared to an expected number for the total number of students served--a comparison derived from national experience).

The circumstance may be related to parents' choice to move to a community where service is available; it may also be related to the phenomenon that when initial service becomes available, a backlog or an enthusiastic diagnostic program yields more students than one would anticipate.

Some districts may be experiencing concentrations of high cost students by parents' choice to become residents. Some districts report incidences of handicapped students deviating from national norms by significant margins, in which case attention may be warranted.

North Dakota remains in a "child find" and initial service mode of providing services to handicapped children; therefore, present statistics seem too preliminary and too tentative to suggest conclusions concerning incidence.

Superintendents in districts which suspect they may be experiencing concentration should be especially alert to the potential for unfair cost distribution. At the same time, that attention should be qualified and informed of possible advantages which

accrue to the districts by other activity of the state (for instance, Grand Forks may experience a higher than typical cost because of rehabilitation hospital students; there may be a lower than typical cost because of the presence in Grand Forks of the State School for the Blind).

The analysis mode suggested is relatively simple; these statistics should be secured and considered:

District	Total Number of Students	Incidence of each Handicapping Condition	Percentage of Incidence Locally	Percentage of Incidence Nationally	Variation
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If each handicapping condition were charted for each district using the headings suggested, the last column would provide a rough index of variation from normative data. Some variation is to be expected, is natural, and may be less than reliable when comparisons are made in small enrollment circumstances. Nevertheless, large and consistent variation should be attended--at least questioned. Are students unserved? Does some district have an unusual--even inequitable--burden which should be compensated somehow?

Our recommendation is one of encouraging the continuing collection and reporting of data as service expands to meet identified needs.

Multiplicity of Levies for Special Funds

North Dakota maintains a maximum mill levy for the general fund of 24 mills. In 1976-77, however, the mean millage for the general fund was 43.5 mills. The mean was greater than the

maximum because "excess levies" are permitted in several forms when approval of the electorate is secured.

Moreover, school districts are permitted to establish as many as 22 additional "funds", most of which encompass authority to make additional levies.* In 1976-77, 18 of those funds were used by one or more school districts. The four funds unused were recently established and insufficient time has elapsed to determine whether and how much they will be used.

Authority to establish these funds is restricted to the electorate of the district (10 instances) or to the local school board by board action or resolution (9 instances); three funds--general, bond proceeds, and construction proceeds--are not easily categorized in this way.

Most districts employ at least several of these funds in addition to the general fund. The table presented on the next page details this usage together with additional information.

The authority provided by these funds is various; the High School Tuition Fund has no stated maximum in mills though a limit is placed in the law by the phrase, "an amount sufficient to pay tuition charges". The Social Security Fund, usually an 800 series expenditure in the general fund, permits a maximum of 40 mills (interesting when considered against the general fund "maximum" millage of 24 mills). The seven funds which can be established on

*Not all funds are reported in this section. There are still other funds available for very unusual but specific circumstances.

School District Funds, NDCC Reference, Nature of Authority
and Districts Employing Funds in 1976-77

Fund (School District Levy)	NDCC Reference	Nature of Authority and How Derived	Number of Districts Employing Fund 76-77
1. General Fund	57-16, 57-15-14	Max. levy 24 mills; several excess levy options	338
2. Building Fund	57-15-16, 57-15-17	Max. levy 20 mills, 60% majority	197
3. Bonds Proceeds Fund	21-03-38	Board action, no levy	19
4. Construction Proceeds Fund	15-60	Board action, no levy	21
5. Sinking and Interest Fund	21-03	No max., 60% majority election	225
6. Special Reserve Fund	57-19	3 mills, board resolution	80
7. High School Tuition Fund	15-40.2-12	Board action, no maximum	98
8. High School Transportation Fund	15-34.2-06	5 mills, board action	49
9. Special Assessments Fund	57-15-14	Board action, no maximum	105
10. Recreation Fund	40-55-01, 40-35-11	3½ mills, majority vote	8
11. Junior College Fund	15-18	8 mills, 2/3 vote of electors	3
12. Social Security Fund	52-09-08, 52-09-27	Max. 40 mills, board action	271
13. Library Fund	57-15-49	2 mills, majority vote	35
14. Communications Fund	57-15-52	1 mill, simple majority	28
15. Teachers Fund for Retirement Fund	15-39.1-28	7 mills, board resolution	280
16. Special Education Fund	15-59-08	3 mills, simple majority	28
17. Kindergarten Fund	15-45-01	No max., simple majority	8
18. Vocational Education Fund	15-20.1-08	10 mills, 60% majority	2
19. School Bus Fund	57-15-52.1	5 mills, 60% majority	--*
20. School Rental Fund	57-15-18.1	5 mills, board resolution	--*
21. Unemployment Comp. Tax Fund	SB 2550 (temporarily)	2 mills, board resolution	--*
22. Political Subdivision Insurance Reserve Fund		5 mills, board resolution	--*

SOURCE: Adapted from material prepared by the Department of Public Instruction for the Legislative Committee on Education, September, 1977

*Recent (1977) legislation; no experience base to examine use

board authority alone (no vote of the electorate) and which have stated millage limits permit, in aggregate, 67 mills.

The establishment of general fund levy limits and the creation of separate funds which themselves have maximums suggests a desire to control expenditure. No denigration of that motivation is intended when we observe that the multiple fund control mechanism developed has some serious problems. Initially it is confusing; it predisposes one to errors because it requires more transactions and more accounting; it permits maintaining balances in funds; it renders analysis and comparison difficult.

Superintendents, however, evidenced mixed opinion when, in interviews, they responded to the statement, "The number of funds should be reduced . . ." in this manner:

Strongly agree	30.2%
Agree	43.0%
Disagree	24.4%
Strongly disagree	2.3%

Those who wished retention of multiple funds noted willingness to expend dollars for a specified purpose.

Transportation Costs

The study group recommends attention to accounting for transportation costs (this recommendation will be encompassed in a broader proposal for improved accounting).

In candor, the study group "gave up" on efforts to provide any useful analysis of transportation costs. This conclusion does

not mean there are questions about the appropriateness nor the level of transportation support; rather, it means accounting for transportation costs was sufficiently various so that no confidence could be placed in the numbers derived nor in subsequent comparisons or contrasts attempted.

It is clear that many districts have heavy transportation burdens; it is quite possible that some districts must expend so much of their effort just to get students to school that they have insufficient capacity to provide more than meager programming when the students do get there. (That was the question we sought to address.)

But we do not have data which permits us any useful conclusion beyond that stated in the first sentence of this section.

(An expanded analysis and discussion of problems is contained in a companion monograph.)

RECOMMENDATIONS

Recommendations propose change. Change suggests dissatisfaction with present arrangements. Dissatisfaction suggests unhappiness--criticism--disappointment--discontent.

Perhaps. But the positive context in which the following recommendations occur should be described.

This is a state which has attended its finance laws. This is a state which has improved equalization. This is a state which has enriched program and service for its youth during a period of severe inflation and of declining enrollment. And these problems were made more complex because of sparsity.

Many states cannot point to a similar responsive performance.

Thus, the present recommendations are proposed in the context of comprehending the considerable attention and progress of past legislatures; implied here is not criticism nor complaint but an urging to continue to consider these complex problems in the same spirit which has characterized recent legislative efforts.

In a study of this nature, one works with data from many sources. A frequent conclusion of that process is that some data are insufficient, inaccurate or contaminated; and that is our conclusion. The conclusion does not imply alarm however. In the state, we are moving to support systems where interactions and comparisons among districts' data have important consequences for equity. Sometimes our data collection systems lag. Also, when working with data one becomes aware of data needs or instances

where better data would be useful.

1. Following then, is a series of statements of conclusion and recommendation relating to perceived data problems. (We have numbered our recommendations sections to afford easy reference.)

- 1.1 Support the Department of Public Instruction initiative to improve the accounting practices of North Dakota school districts.
- 1.2 Consider accounting for transportation separately, requiring districts to:
 - 1.21 distinguish among home-to-school transportation, field trips, and activity trips;
 - 1.22 include an amortization schedule so that capital cost of buses are uniformly stated, accounted, and attended;
 - 1.23 assure that the general fund is not contaminated (if the custodian drives the bus, prorate salary between functions). (See also 2.33)
- 1.3 Where school districts cross county lines, collect and display the contribution of valuation from each county. (Reason: in order to consider any factoring of levies, these data must be available.)
- 1.4 Distinguish between "resident students in average daily membership" from "non resident students in average daily membership" (tuitioned students) to derive the total "average daily membership" on the B1 (Pupil-Membership)

report. (Reason: sometimes valuation per ADM resident would be a more useful and more precise figure than valuations per census count.)

- 1.5 Cause county and local costs for special education to be reflected accurately in SF01 (Clerk's) report:

- 1.51 insure that local district budgets contain the fair proportion of the cost of services the district receives from a multi district unit funded through county and/or state support.

- 1.52 prevent the same cost from being reported twice-- which can occur easily with a shared service. (Example: District A purchases 40% of a speech therapist's time from district B; district A reports 40% of the salary and district B reports 100% of the salary and an offsetting revenue from district A.)*

2. The perceptions of and recommendations of users (superintendents primarily) suggest, in the main, a steady course characterized by periodic review, modification related to more recent data, and attention to unresolved or imperfectly resolved problems. The following study team recommendations grow out of an interview and questionnaire activity, supported by information from other sources.

The Department of Public Instruction initiated attention to this item and several other recommendations during the period of the study. Where this attention occurred, an asterisk () is placed at the conclusion of the recommendation.

- 2.1 Continue to consider the "educational cost per pupil" statistic every biennium; the Department of Public Instruction should at least
- 2.11 continue to collect and systematize the data by size, type, and level, and
 - 2.12 display longitudinal data by size, type, and level so that trends and averages are discernible (see also 2.2)
- 2.2 Consider modifying indices on the basis of a group of data (5 years/10 years) rather than on data for a single year. (There exists some volatility in cost data particularly among smaller schools; there are some data missing in clerks' reports--see 1.51; this recommendation would tend to smooth out transitions in indices avoiding more dramatic changes which could occur if a single year's data were considered.)*
- 2.3 Cause study to continue in several areas. (Note: In the second year of the project, data will be collected to assist in deliberations proposed in 2.31 and 2.32.)
- 2.31 investigate other state systems and ideas for relating to declining enrollments (initial investigation shows the present North Dakota provision very similar to other states.)
 - 2.32 consider the "small but necessary school" language in laws of other states; consider criteria to define the small but necessary school in North Dakota

(related to this idea is that the necessary--geographically isolated--small school should receive special subsidies but that the local decision to remain small, where geographic isolation does not exist, should be honored but not subsidized).

2.33 secure accurate cost data for transportation so that an accurate picture of cost circumstances can precede deliberation (see 1.2).

2.4 Reduce the number of funds and increase the maximum millage the district can levy correspondingly:

2.41 incorporate the authority given boards by their own "resolution" into their general fund authority.*

2.42 review authority of voter-approved funds to determine whether they cannot be consolidated (fewer funds) or eliminated (incorporated in general fund authority).

3. A major part of the study involved displaying data for "longitudinal analysis". Data were secured from many sources-- accreditation reports, minutes of the State Board of Public School Education, PER-1 and PER-3 (fall reports of schools to the Department of Public Instruction), district financial data, tax information from several sources. In the main, the effort intended to respond to the question "What happened as a result of or during the period of operation of the 'new' foundation law?" We anticipated responding with some frequency, "Nothing is discernible."

In many cases that is how we must respond. Still, the effort was hardly fruitless. We learned, for instance, that secondary programs are richer and more varied now than they were before the new foundation law passed. The law has facilitated variety. But the least gain occurred where programs were already most meager. That suggests a concern.

Not all data collected seem useful for financial policy analysis; they may be useful for other purposes, and for this reason, the accumulated data will be shared with the Director of Elementary Education and with the Director of Secondary Education of the Department of Public Instruction so that it might be considered for its significance for program policy. (Members of the study team will meet with these directors for the same reason.)

Several observations and recommendations do grow out of this longitudinal analysis. (While most of the recommendations contained in this report are intended for legislative deliberation, several in this series apply to facilitative activities the Department of Public Instruction should consider.)

- 3.1 Enhance the data collection and data display systems with certain concomitant requirements. . .
 - 3.11 engage the policy question of why (for what purpose) data should be collected and how detailed the data should be (district? level? building? classroom?)
 - 3.12 review formats and protocols so that only essential data are collected--and these are collected only once.

3.13 systematize--and assign responsibility for--analysis of trend data to enhance forecasting and predicting capabilities.

(Note: Project funds permitted initial acquisition and training for the use of the School Finance Equalization Management System (SFEMS) developed by Educational Testing Service; thus the general recommendation has already been attended; however, for the system to be useful, attention to the subrecommendations are required.)

When considering trend data and performance data, certain ambiguities and problems in administration were detected; the following general and specific recommendations grow out of that activity.

3.2 Cause the Department of Public Instruction to review elements of (and if necessary provide substitute language for) the foundation law considered ambiguous or perceived to be administered contrary to legislative intent;

3.21 develop language which creates a set of district indices so that no district can be advantaged nor disadvantaged by being simultaneously both large and small; one method: if district enrollments qualify for different sets on the basis of elementary, 7-8, and high school enrollments, the district could choose the set which favors the district but they could not choose the individual indices. This system would require, however, that where buildings exist outside the corporate limits of the community, a different level of support

could be secured for that (those) building(s) only.
(A large district which had a one-room rural school for instance, could secure expanded revenue for that one room school.)

- 3.22 require the counting of students in consistent ways in all districts (K, 1-6, 7-8, 9-12) so that administrators are prevented the potential of manipulating "building sizes" into higher index categories by creative assignment of principal's responsibilities (a corollary of this recommendation would prevent higher indices applied to single grade levels separated into different buildings.)
- 3.23 clarify intent regarding transfer of payments to districts out of county; at the present time the sum of county payments to individual districts will not always equal the gross entitlement to the county (the discrepancy has at least two sources-- treatment of non-operating districts where the 20 mill equalization factor is not applied and where county entitlement is calculated on the circumstances of the county but paid for county residents who attend in another county on the basis of circumstances in the county of attendance.)*
- 3.24 clarify the application of the 20 mill equalization factor in the circumstances of a non-operating district, not on a state line. (Note: This

recommendation relates to perceived vagueness which should be eliminated.)

3.25 consider the possibility of establishing 20 mills as the "qualifying rate for participation in the foundation program (every district would need to make at least that effort to secure foundation payments).

4. Special comment regarding the consequences of enrollment data seems warranted. When enrollments and related pupil teacher ratios were displayed by sizes by years a couple interesting, and believed important, elements were discerned. Secondary pupil teacher ratios actually increased during the study period; elementary pupil teacher ratios declined--in substantial part because of declining enrollments. In general, that effect was accommodated without major surgery in services but not without increasing unit costs: elementary unit costs increased more rapidly than secondary unit costs during the study period.

The declining enrollment phenomenon is about to "hit" the secondary schools with anticipated major consequences for unit costs or programs or both. The effect is perceived to be most devastating for smaller schools. Believed prudent is a rational planning reaction, particularly for those smaller schools.

4.1 Facilitate--even require--planning which accounts for anticipated enrollments, anticipated revenues,

anticipated staffing, and anticipated programs at least for grades 7-12 at least for high schools (9-12) with enrollments below 150 students.

4.11 Consider instituting "planning grants" which would be greater--or receive higher priority--where interdistrict planning was proposed.

5. Several recommendations grew out of the analysis of the distribution of coal taxes to school districts.

5.1 Consider developing an "impact basis" for the distribution of coal revenues to schools impacted in proportion to their impact and in some relationship to analagous revenue generation from property tax.

5.2 Consider development of certain partial solutions to predicted problems in distribution of coal severance monies to schools if the comprehensive solution suggested in 5.1 proves impossible or undesirable:

5.21 Consider impact effects across county lines from extractive activity; develop some system for compensating extraordinary impact for students residing close to--but not in--counties of extraction.

5.22 Consider capping per pupil payments from severance taxes at some level which avoids the argument of other than "uniform" treatment, that is where support is in some relationship to analagous support which would have occurred had an increment in valuation obtained.

- 5.23 Where (if) capping is adopted, consider creation of a trust fund(s) for compensation following depletion for phase down or phase out costs.
- 5.24 Consider developing a forward funding mechanism to permit revenue distribution for general operating purposes during construction phases of coal activity.
6. The distribution of oil and gas revenues might also be attended.
- 6.1 Should an "impact basis" be adopted for the distribution of coal revenues to schools, consider the utility of a study to determine retroactively school costs associated with oil and gas impacts. (Preliminary study suggests that process will not be easy nor will its results be precise.) Those data in hand would permit considering an "impact basis" for the distribution of oil and gas severance revenues to schools. . .
- 6.2 Improve comprehension of oil and gas tax administration and standardize distribution schedules through county offices. (Note: Distribution practices sometimes, some places, yield three, four or five quarter payments in a school year and vary among schools; the various sizes of these payments is not comprehended because administration is not understood.) A consequence of this circumstance is fairly general confusion regarding the whole revenue source; forecasting and revenue-projecting activities for

local school districts suffer.

7. Recommendations relating to assessment practice follow:

7.1 Quest for equity in assessment practices. (The ideal-- and idealistic--solution to several related educational finance problems is to have an equitable, agreed upon system consistently administered and enforced. Approximating equity through applications of assessment-sales ratio data or other manipulations may be more practical, but, nevertheless, second best.)

7.2 Improve the amount and quality of data necessary to more closely approach equity through data manipulation:

7.21 Seek valid assessment--sales ratio data to test the fidelity of assessment practices;

7.22 supplement that data by appraisal data where needed;

7.23 require and provide training for assessors;

7.24 create sufficient authority so that officials can secure data needed to ensure accuracy and equity.

(Note: During the period of this study, the State Tax Department prepared a document entitled, "A Blueprint for Property Tax Reform in North Dakota." The focus of that effort was broader than that of the present study which considered educational finance issues only. Still, many conclusions of the two efforts are similar if not identical. The "Blueprint" ranged into many areas not attended by this study so we are neither qualified nor inclined to endorse or agree with it in totality; we can, however,

applaud the effort and urge that it be employed in the much needed deliberation of the whole property tax issue.)

7.3 Consider factoring the 20 mill equalization factor so that those districts assessing above state average are not penalized by oversize foundation program entitlement reductions.

7.4 Adjust "limits" on funds or capacities (as bonded debt capacity) which "limits" have been eroded by changing true value--assessed value relationships.

7.41 Consider permitting funds or capacities to grow by fixed percentages (if the true value--assessed value relationship--had remained constant, this growth potential would have occurred automatically).

7.42 Isolate and address the special case of capital fund inadequacies; create capacity to construct needed facility--subject to the continuing restrictions of local choice--by increasing debt capacity, or by increasing the corpus of and amount available from the State School Construction Fund, or by creating new mechanisms for funding capital expenditure, or some combination of the above.

8. The study of revenue and cost comparisons among schools led to the following recommendations:

8.1 Attend the measures of disparity in expenditure or revenue among districts (currently 59% against a 25% or below qualifying standard) and of wealth neutrality

(currently 87% against an 85% or above qualifying standard) so that actions to reduce disparity or increase wealth neutrality can be considered.

8.11 Cause disparity and wealth neutrality data to be collected and displayed systematically (and at least annually) so that affected schools and legislators can comprehend state performance (see also, 3.1, 3.13 and the accompanying note).

8.12 Consider the policy implications of the level of disparity ascertained (e.g., should North Dakota level up? If so, how?)

8.13 Commit the state to attempting to achieve this (these) standard(s) by inserting language in the foundation program which asserts:

"It is the intention of the legislature to periodically consider performance of funding mechanisms by analyzing disparity and wealth neutrality data."

and,

"It is the intention of the legislature not to deduct from district entitlements an excess of the proportion of funds that may be taken into account under federal regulation."*

9. A good deal of interest and concern are apparent in questions relating to special education. Perhaps this is natural in an area where service is being expanded rapidly, where new cooperative governance and expenditure relations are being tried, where costs are exploding, where regulation is growing. How should funding be structured: should it be incorporated in the foundation program to increase local control or be

administered by a state agency to ensure state oversight? Really, that is a philosophical and practical question which is not served by numerical data. Are there instances where a given community has an unusual special education burden? That question invites numerical responses but the numbers are too preliminary for confident analysis.

The study team has many impressions related to special education but few conclusions. A greater sense of this attitude--and reasons for the attitude--can be gained by reading papers prepared on the subjects of attention and contained in a companion monograph.

The following recommendations are intentionally hedged to buy time for fuller service, better data, clearer implications. The questions addressed seem worthy of attention; progress in North Dakota suggests the wisdom of permitting accumulation of a little more history and aggregation of a little more information before too significant change is considered.

- 9.1 Cause the Department of Public Instruction to collect, display, and distribute data comparing incidences of handicapping conditions by unit (district or cooperative) with anticipated incidences from national experience.
- 9.2 Consider replacing the present formula for distributing special education aids from a percentage of state average cost to the same percentage of local cost (preventing revenue to exceed expenditure and preventing widely varying support levels); should that mechanism be perceived

to favor "high cost" districts, consider the middle road of an average of state average costs and local costs.

Other questions were considered; other data were analyzed; this paragraph will enumerate items about which we have no conclusion nor recommendation based on study findings or analysis: (1) changing the 20 mill equalization factor, (2) ascertaining unusual incidences--and compensating differently for concentrations--of AFDC students, (3) modifying indices to encourage reorganization, (4) incorporating special education, vocational education or kindergarten into the foundation program, (5) ascertaining reliable unusual incidences of handicapping conditions in particular districts or cooperative units, (6) superior--even alternate--systems for easing the impact of declining enrollments. The fact that we have nothing to propose relative to these items should not suggest they are unimportant nor that they might be forgotten. (Study team members do have individual points of view about several of these subjects but no consensual conclusion for financial policy grew out of information considered.) Most of these topics deserve continuing attention.

APPENDIXES

Study Questions

The Federal Register, Volume 40, Number 149 for Friday, August 1, 1975, pages 32329 through 32335 contains regulations and guidelines for "Part 156-Assistance to States for State Equalization Plans." Included therein (at Subpart B, page 32334) were so-called "Equity Guidelines." These guidelines described the boundaries within which proposals could be generated--they established and limited the legitimacy of questions which would comply with the intent of the legislation and, accordingly, which could be a part of the study. A set of study questions was proposed by the North Dakota team.

In meetings with the Steering Committee, the Advisory Committee and with Department of Public Instruction personnel, these questions were revised. Presented here are an "amplified set of questions" which were developed by the fall of 1977 and which guided subsequent study efforts. Questions preceded by an asterisk (*) were not incorporated in the original proposal. Parenthetical notes--e.g., 156.12 Cost Variations--refer to Equity Guidelines.

O. An "adequate" educational program will be described by compiling statute and regulation specifying minimum requirements for program, for service, for personnel qualifications, etc.

*What patterns attend districts which exceed, meet, fail to meet established minimums (are there cost, size, location, other, correlatives with performance?)

1. A study of the present foundation program will be initiated with a view toward analyzing a variety of weighting factors in determining the relative financial need of school districts.
(156.12 Cost variations.)

- a. Does the North Dakota law need sparsity escalators even where the history of costs do not demonstrate higher cost for low enrollment-large area school districts?
- b. Should the foundation program recognize unique problems occurring where a steady enrollment decline can be predicted? If so, how?
- c. Do you support the cost basis for determining formulae indices?
- *d. Do any districts in North Dakota experience "overburden" problems? What basis for describing overburden could be considered (e.g., AFDC frequency; Title I eligibility; greater than anticipated incidence of certain special education typologies?)

2. A study will be initiated to determine the comprehensives of the present state financial assistance program and the impact if kindergarten and special education services are included.
(156.13 Comprehensiveness of program.)

- a. Do you believe other program supports should be brought into the foundation program (programs not now supported such as kindergarten; programs now supported in other ways such as special education).
- *b. Study proposals to and state systems for incorporating

special education supports into the foundation programs, ascertain advantages and disadvantages for both categorical and integrated practices.

3. The inclusion of other local revenues in the calculation of foundation payment will be studied to determine the impact and equity of such action. (156.14 Equalizing financial ability.)

a. Should the legislature consider revenues other than local revenues as local revenues for the purpose of the foundation program? (As they do some part of PL 874.)

*b. What is the effect of the distribution of:

- 1 - oil and gas revenues to schools
- 2 - coal revenues to schools;

What arguments support the continuation of this apparent disequalizing effect?

*c. Should "impact" qualifications and supports be considered as an alternative to present grant systems?

*d. Can the entire system be simplified? (Can the number of funds be reduced?)

4. A study of fiscal data for the last six years will be analyzed to determine the extent to which the foundation program has improved equity among school districts. (156.14 Equalizing financial responsibility.)

a. Has the foundation program been a positive (and popular) force for improving education in North Dakota?

*b. Are expenditures more nearly equal; have effort ratios modified?

5. A study of current revenue will be initiated to determine the percent of revenue in each school district which is wealth neutral. (156.14 Equalizing financial responsibility.)
- a. Does the North Dakota plan conform to the disparity test?; if it does not, what adjustments would be necessary to accommodate that test?
 - b. Does the North Dakota plan conform to the "wealth neutrality" standard?; if it does not, what adjustments would be necessary to accommodate that standard?
 - c. Are the test and the standard appropriate measures of equalization of opportunity for North Dakota? (Dollar equalization may not be equalization of opportunity in North Dakota.)
 - d. If neither the test nor the standard is achieved, are there circumstances or conditions (such as sparsity) which argue for consideration that equity should be "examined on a more individual basis, as provided for in §115.62(d)."
 - *e. What do wealth neutrality tests demonstrate when categorized by index (size) groups?
 - *f. Should income be factored into wealth definitions? How has income been considered as a factor in other states?
6. A study will be initiated to illustrate problems in achieving equity where discrepancies exist in assessment practices; where discrepancies exist, steps will be suggested to correct consequent inequities. (156.14 Equalizing financial ability and 156.15 Tax support.)

- a. Does North Dakota have equitable assessment practices? If not, can a completely equitable foundation program be developed?
 - b. Should the 20 mill (or whatever) equalizing factor in the present law be adjusted similar to the adjustment of the 21 mill county levy to reflect true value--assessed value ratios?
 - *c. What has been the recent pattern of cost-valuation comparisons in North Dakota (patterns over time; patterns among areas)? To the extent problems are suggested by patterns what proposals should be considered?
 - *d. What is the practice in other states in securing data for sales-ratio information? Does there exist a system which avoids the "invasion of privacy" argument? What factors militate against accuracy of sales-ratio data?
7. A study will be initiated to determine whether the present state foundation program has encouraged efficiency in the delivery of educational services as a means of promoting equality in educational opportunities. (156.17 Educational efficiency.)
- a. How do expenditures compare over the experience period?
In dollars and in comparable dollars?
 - b. How do district expenditures at the extremes (low expenditure, high expenditure districts) compare before and after the program?
 - c. How do programs compare over the experience period?

- d. How do professional personnel--numbers (actual and per unit) and qualifications--compare over the period?
 - e. What is the experience in district consolidations and annexations over the period when compared to a period of the same duration previous to the adoption of the statute?
 - f. Do statewide test data over the period suggest any discernible differences or directions?
 - *g. Does a transportation overburden exist in North Dakota schools? If so, could it be defined?
8. Evaluation Study will be initiated to determine whether a useful management analysis system can be conceived and constructed.

*Can an interactive evaluation model be developed? What should be incorporated? How programmed?

Participants

Several individuals and groups participated in study activity. Their contributions were many; their assistance was appreciated; however, only the project staff bears responsibility for the products of study effort.

The Steering Committee

Senator S. F. Hoffner, Esmond
Senator James G. Smykowski, Cayuga
Representative Irven Jacobson, Alamo
Representative Kenneth Knudson, Taylor
Superintendent Howard Snortland, Department of Public
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The Advisory Committee

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Joan Burke, Grand Forks, League of Women Voters
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Don Heier, Grand Forks, Association of Elementary School Principals

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John Mc Gauvran, Osnabrock, Farm Bureau

Jo Miller, Fargo, North Dakota School Boards Association

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James Tronsgard, Fargo, Director of Special Education

(Invited statements to the advisory committee.)

August Keller	West Fargo	"Erosion of Capital Fund Capacity"
Sam Kessler	Belfield	"Sparsity and the Small Rural School"
James Kieley	Fargo	"Cost and Indices"
Leon Olson	Williston	"Oil and Gas Tax Distribution"
Virgil Erdelt	Steele	"Problems of the Medium Sized School"
Gordon Paulson	Dickinson	"Concerns and Problems in Funding Special, Vocational and Adult Education"

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